



**NTSB** National Transportation Safety Board

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*Office of Aviation Safety*

**Circuit City Cessna 560  
Pueblo, CO  
February 16, 2005**

Frank Hilldrup  
Major Investigations Division

# Accident Summary

- February 16, 2005
- Circuit City Cessna Citation 560
- Operated by Martinair pilots
- Six passengers and two pilots killed
- Part 91 flight

# Key Findings

- Icing encountered on descent and approach
- Airspeed not maintained on approach
- Boots not operated on approach
- No stall warning before stall

# Enroute

- Accident flight and “sister ship” departed Richmond about 0600 EST
- Fuel stops at Columbia, Missouri, and Pueblo
- Arrived into Pueblo area just before 0900 MST
- Icing forecasts for Pueblo

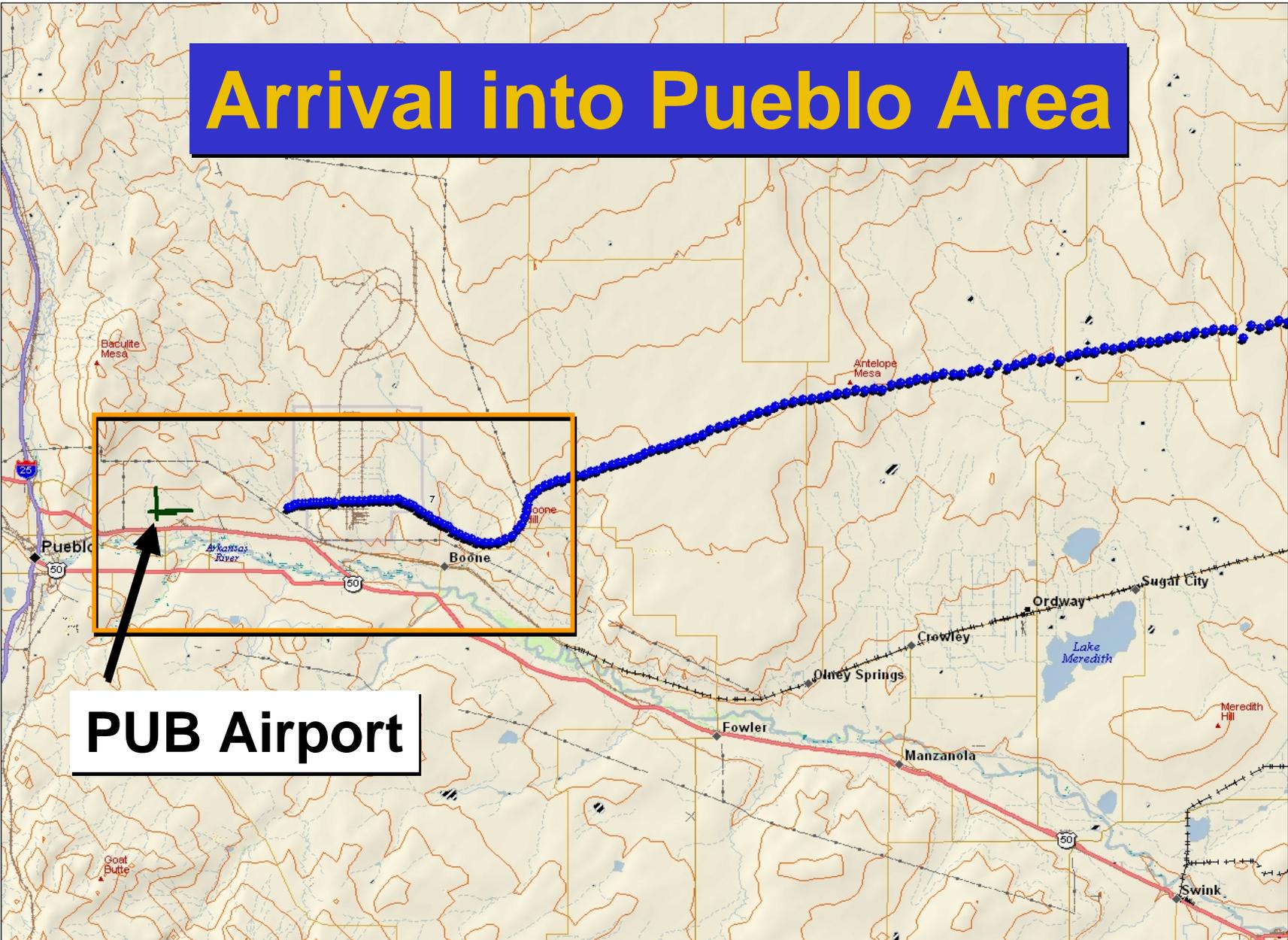
# Descent

- Crew discussed icing conditions
- First Officer reported “grayish” ice on wing leading edge
- Deicing boots operated several minutes later
- Captain commented that some ice remained

# Cessna Citation 560

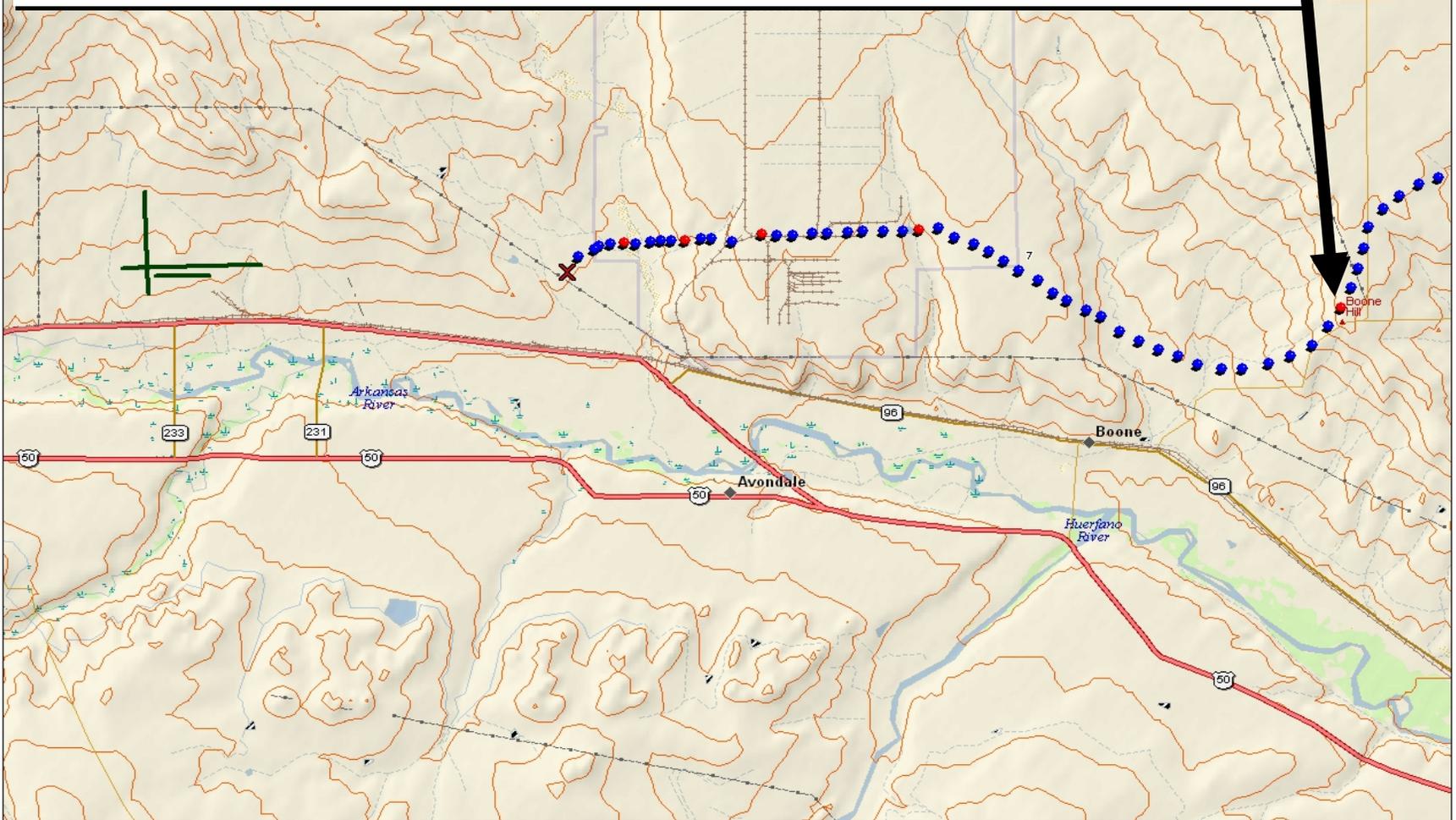


# Arrival into Pueblo Area



**PUB Airport**

0909:19, FO: “you got a little different ice on there now. it’s clear.”



Data use subject to license.

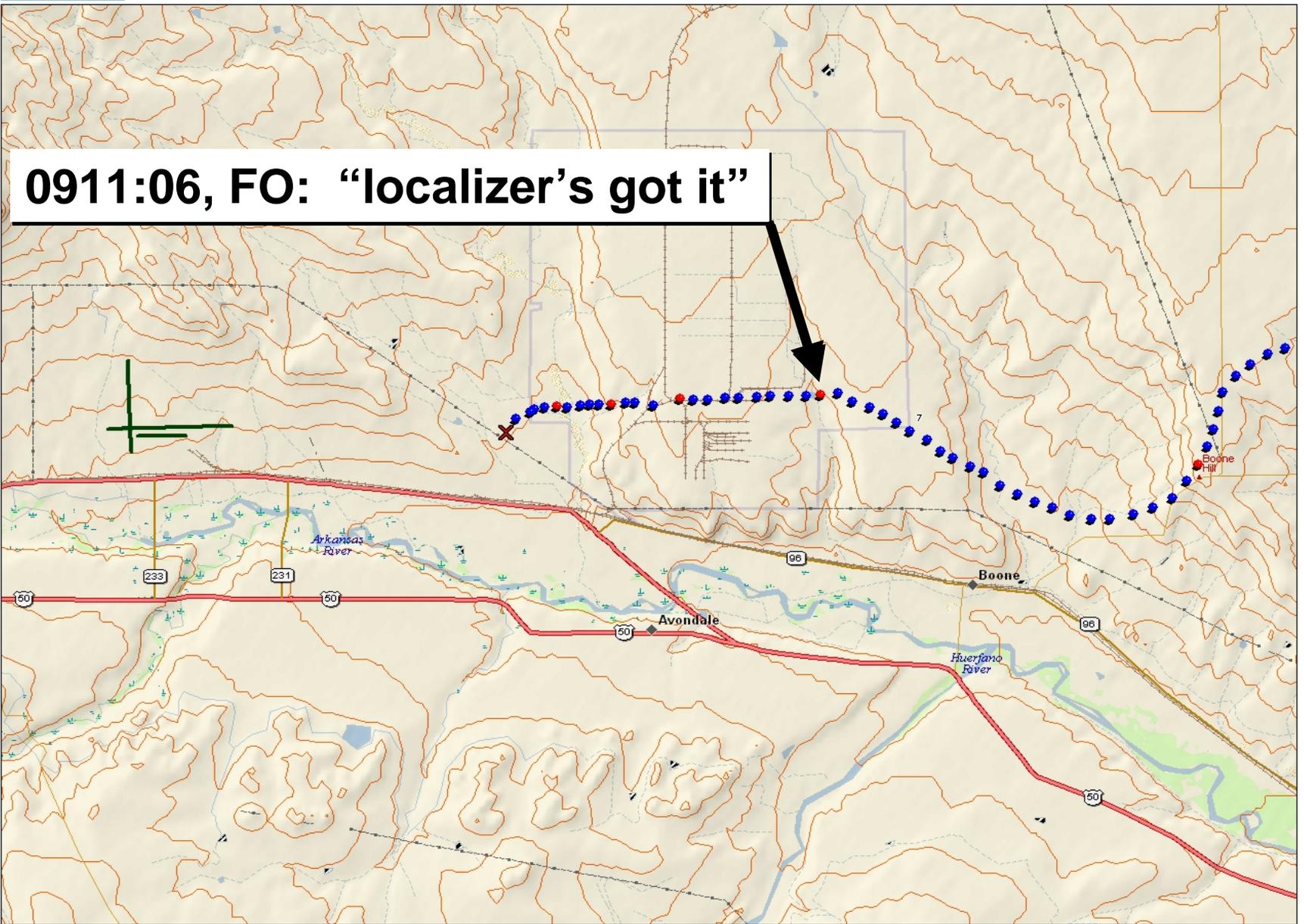
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Data Zoom 10-5

0911:06, FO: "localizer's got it"



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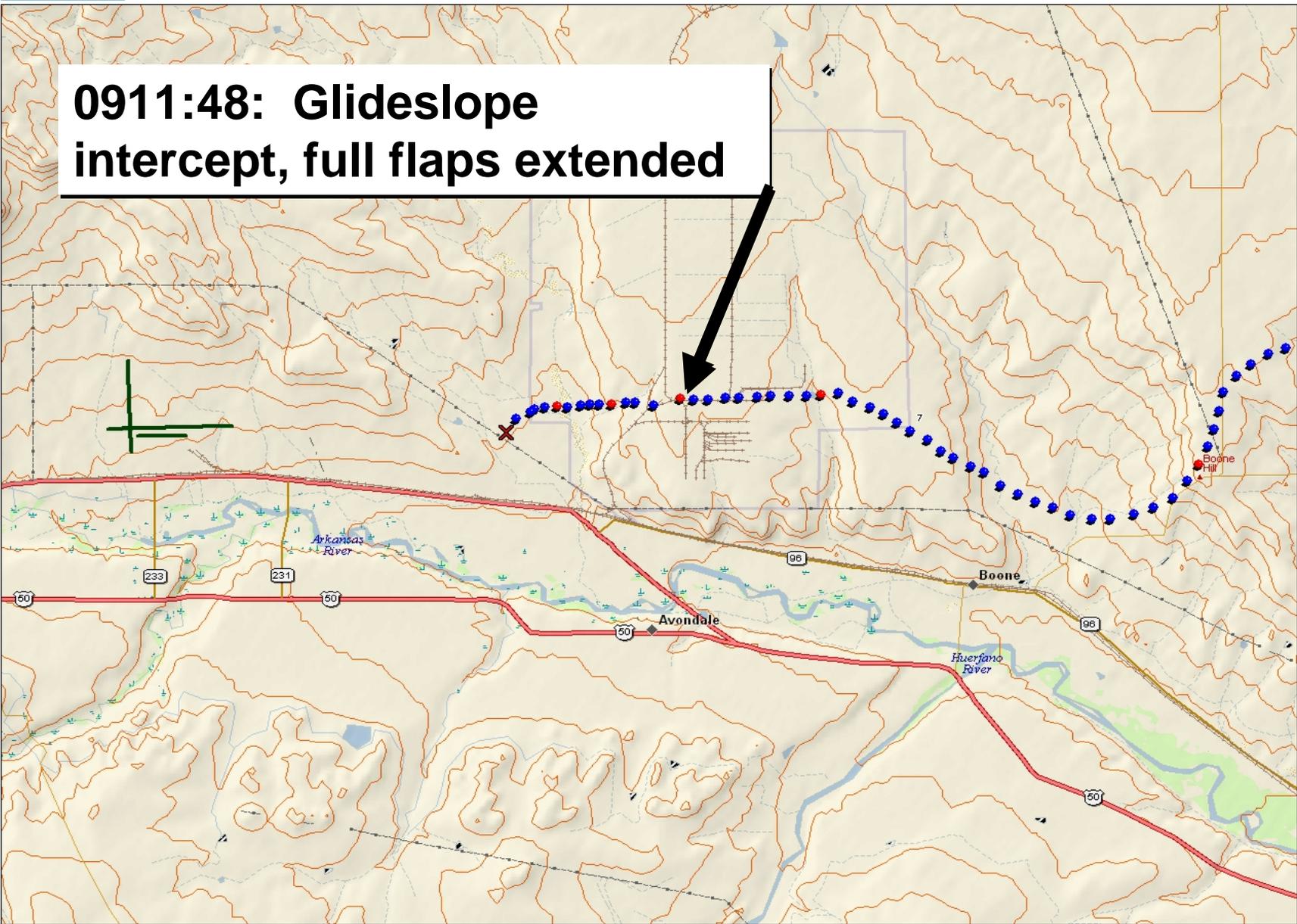
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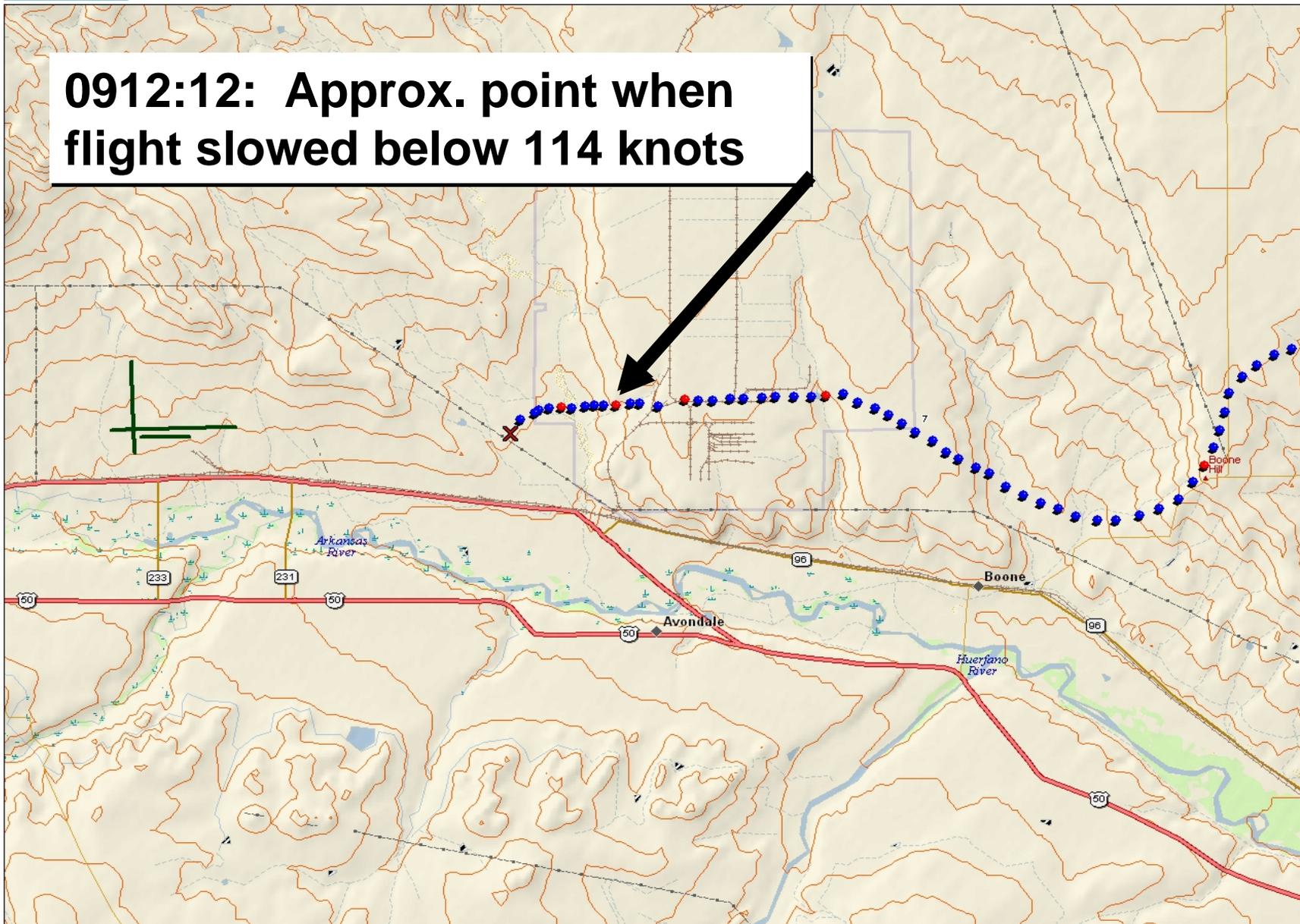


Data Zoom 10-5

**0911:48: Glideslope  
intercept, full flaps extended**



**0912:12: Approx. point when flight slowed below 114 knots**



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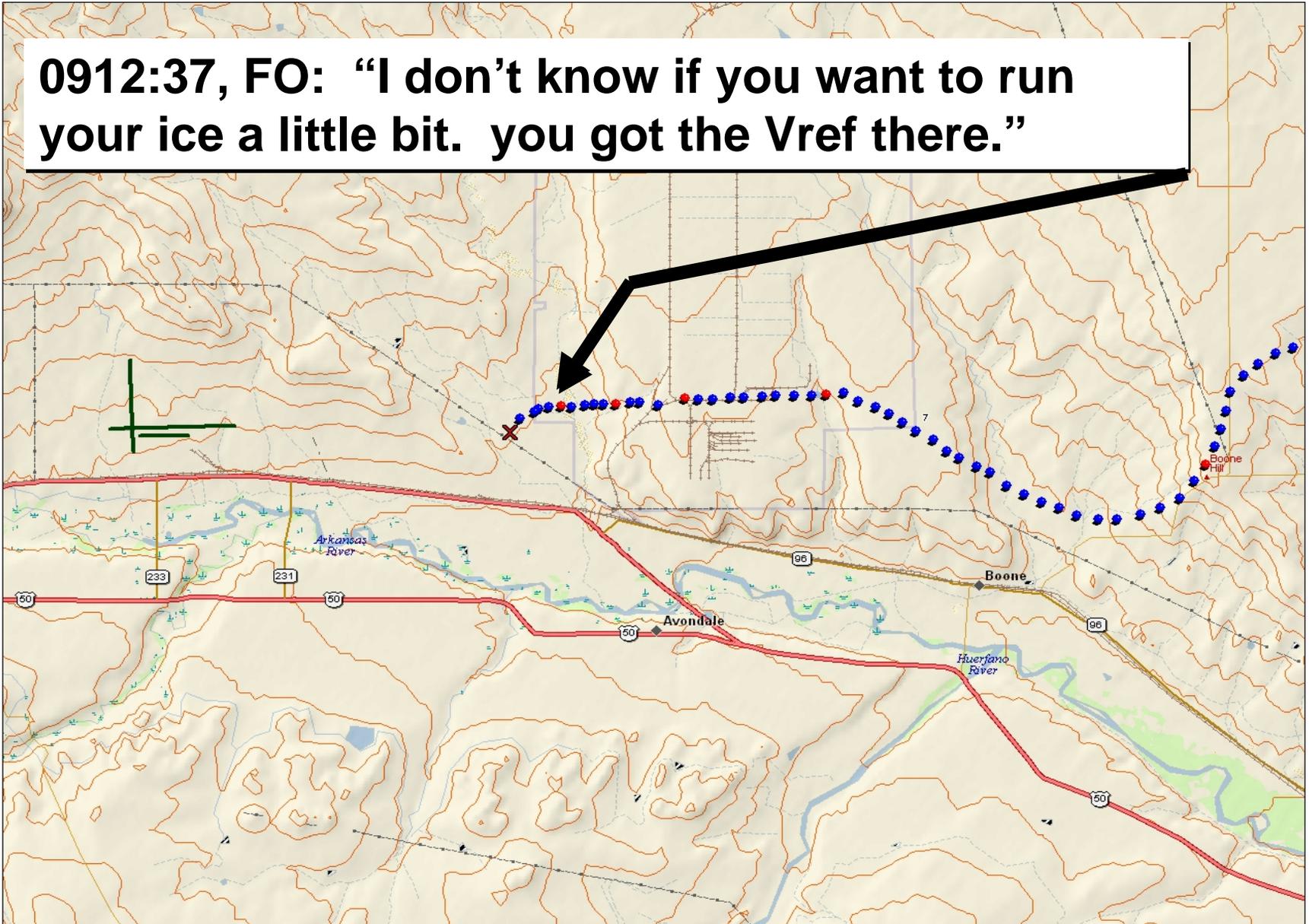
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Data Zoom 10-5

**0912:37, FO: “I don’t know if you want to run your ice a little bit. you got the Vref there.”**



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Data Zoom 10-5

# Stall Sequence

- Stall occurred at 6,100 feet
  - (1500 ft AGL)
- Sudden left roll, A/P disconnect
- Airspeed at stall approx. 90 kts
- No stall warning before stall

# 560 Approach Speeds in Icing

$V_{app}$  in icing

— 114 knots

$V_{app}$

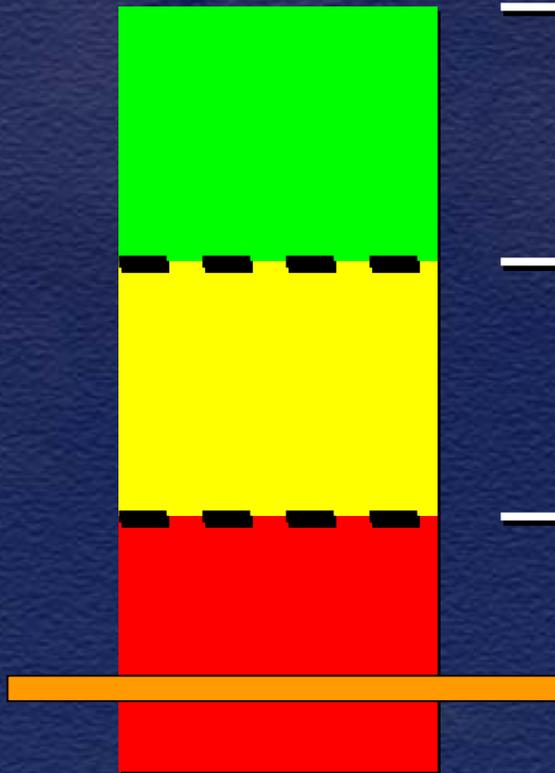
— 106 knots

$V_{ref}$

— 96 knots

Accident Stall Speed

90 knots



# Key Operational Issues

- Adherence to AFM requirements on deicing boots and airspeed
- Monitoring skills and workload management

# Parties to the Investigation

- FAA
- Cessna
- Martinair
  
- TSB (Canadian Accredited Rep)
- Pratt & Whitney of Canada (Advisor)

# NTSB Staff

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